

## Claims

**CLAIM 1.** Procedure for manufacturing decorative glass panels,  
wherein:

the panels comprise each a base-pane and shaped-pieces, and  
the shaped-pieces lie flat upon, and are fused to, the base  
pane;

the procedure includes:

cutting out the shaped-pieces from an initial-sheet of glass

in a numerically-controlled glass-cutting machine;

the glass-cutting machine is a machine in which:

a sheet of glass is placed in the path of a cutting-head,  
and the cutting-head is operable to cut right through the  
sheet of glass;

in which the arrangement of the machine is such that the  
cutting-head follows a profile laterally with respect to  
the sheet of glass;

and the profile followed by the cutting-head relative to  
the sheet of glass is numerically programmable;

providing a template, having apertures, and the apertures

correspond to the cut shapes of the shaped-pieces;

positioning the shaped-pieces on the base-pane, using the  
apertures in the template to locate the pieces in position  
thereon;

placing, in a furnace, the base-pane with the shaped-pieces  
resting thereon in the positions and orientations thereon as  
set by the apertures in the template;

ensuring that the shaped-pieces do not become disturbed, in  
the furnace, from their set positions and orientations on  
the base-pane;

heating the base-pane and the shaped-pieces together in the  
furnace, whereby the shaped-pieces become fused to the base-  
pane, and withdrawing the panel comprising the base-pane  
with the shaped-pieces fused thereto, after cooling, from

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the furnace.

**Claim 2.** Procedure of claim 1, wherein the cutting-head of the glass-cutting machine includes a water-jet, of such nature as to cut right through the sheet of glass.

**Claim 3.** Procedure of claim 1, wherein the apertures in the template are cut out on an NC machine.

**Claim 4.** Procedure of claim 3, wherein the procedure includes cutting the apertures in the template in a template cutting machine, in which the cutting-head follows a profile laterally with respect to the template, and the profile followed by the cutting-head relative to the template is numerically programmable.

**Claim 5.** Procedure of claim 1, including providing a coatings-template, placing the same over the base-pane; and applying colouring material onto the base-pane, through apertures in the coating-template.

**Claim 6.** Procedure of claim 1, wherein the operations of picking the shaped-pieces from the cutting machine, and placing the shaped-pieces in the apertures of the template on the base-pane, are carried out manually, by a human operator.

**Claim 7.** Procedure of claim 3, wherein, in respect of each aperture, the aperture is cut with a margin of clearance between the aperture and the respective shaped-piece placed in the aperture, whereby the shaped-piece is loose in the aperture, and the margin of clearance is small enough that no point on a shaped-piece cut exactly to the pre-programmed profile, and placed in the aperture, can be displaced

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laterally within the aperture a distance overall of no more than 3 mm.

**Claim 8.** Procedure of claim 7, wherein the shaped-piece is chunky in shape, and the shaped-piece can be displaced no more than 1 milli-metre.

**Claim 9.** Procedure of claim 1, wherein the procedure includes making the template from a combustible material, and keeping the template in place on the base-pane during firing, whereby the template is destroyed.

**Claim 10.** Apparatus of claim 1, wherein the procedure includes removing the template from the shaped-pieces and from the base-pane, prior to placing the base-pane and the shaped-pieces in the furnace.

**Claim 11.** Procedure of claim 1, wherein all the shaped-pieces and the base pane are cut from the same initial-sheet of glass.

**Claim 12.** Apparatus of claim 1, wherein the procedure includes:

placing the template directly upon the base-pane, in such manner that the shaped-pieces, placed in the apertures, can rest upon the base-pane, and be held retained in position laterally with respect to the base-pane by the presence of the template;

fixing the template into a pre-determined position and orientation, in the lateral sense, relative to the base-pane;

gathering the shaped-pieces, thus cut out on the cutting machine, and placing the shaped-pieces flat upon, and in direct contact with, the base-pane, placing and orientating

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the shaped-pieces into their respective apertures in the template.

*Rule 12* <sup>13</sup> Claim 12. Apparatus of claim 1, wherein the procedure includes:

placing the template on a backing-sheet, in such manner that the shaped-pieces, placed in the apertures, can rest upon the backing-sheet, and be held retained in position laterally with respect to the backing-sheet by the presence of the template;

fixing the template into a pre-determined position and orientation, in the lateral sense, relative to the backing-sheet;

gathering the shaped-pieces, thus cut out on the cutting machine, and placing the shaped-pieces flat upon the backing-sheet, placing and orientating the shaped-pieces into their respective apertures in the template;

and transferring the backing-sheet and the shaped-pieces positioned thereon, onto the base-pane.

<sup>14</sup> Claim 13. Apparatus of claim 12, wherein the procedural step of gathering the shaped-pieces and placing the shaped-pieces flat upon the backing-sheet, and of placing and orientating the shaped-pieces into their respective apertures in the template, is carried out manually, by direct hand operation.

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